

IN THE CLAIMS

1-13 (canceled)

14. (withdrawn) An apparatus for treating an exhaust gas containing ammonia and metalorganic vapour, the apparatus comprising: means for partially removing the metalorganic vapour from the exhaust gas, and means for exposing the exhaust gas to an ammonia decomposition catalyst.

15. (withdrawn) The apparatus according to claim 14, wherein the removing means comprises means for partially decomposing the metalorganic vapour within the exhaust gas.

16. (withdrawn) The apparatus according to claim 14, wherein the removing means comprises means for exposing the exhaust gas to a heated bed of one or more materials for causing the metalorganic vapour to decompose.

17. (withdrawn) An apparatus for treating an exhaust gas containing ammonia and metalorganic vapour, the apparatus comprising: exposing means for exposing the exhaust gas to a heated bed of one or more materials to cause the metalorganic vapour to decompose and for subsequently exposing the exhaust gas to an ammonia decomposition catalyst.

18. (withdrawn) An apparatus according to claim 17, wherein the exposing means comprises first and second sequential stages in communication with each other and through which the exhaust gases pass during treatment, the first stage containing the heated bed and the second stage containing the catalyst.

19. (withdrawn) An apparatus according to claim 17, wherein the exposing means comprises a single gas treatment chamber subdivided into two zones by the heated bed and the catalyst.

20. (withdrawn) An apparatus according to claim 19, wherein the exposing means comprises a replaceable cartridge.

21. (withdrawn) An apparatus according to claim 18, wherein the exposing means comprises a first chamber containing the heated bed and a second chamber downstream from the first chamber containing the catalyst.

22. (withdrawn) An apparatus according to claim 17, comprising means for heating the catalyst to decompose the ammonia into nitrogen and hydrogen.

23. (new) A method of treating an exhaust gas containing ammonia and metalorganic vapour, the method comprising:

providing a chamber comprising a first zone containing a bed of metal and a bed of metal oxide, and a second zone containing an ammonia decomposition catalyst;

heating the chamber to a temperature in the range from 200 to 700°C using a furnace surrounding the chamber;

conveying the exhaust gas through the first zone of the chamber to expose the exhaust gas to the heated bed of metal to heat the exhaust gas, and to subsequently expose the exhaust gas to the heated bed of metal oxide to cause the metalororganic vapour to decompose; and

subsequently conveying the exhaust gas through the second zone of the chamber to expose the exhaust gas to the heated ammonia decomposition catalyst to cause the ammonia to decompose.

24. (new) The method according to claim 23, wherein the catalyst comprises nickel supported on a ceramic former.

25. (new) The method according to claim 23, wherein the metalorganic vapour comprises a metal-alkyl vapour.

26. (new) The method according to claim 23, wherein the metalorganic vapour comprises a group III metal.

27. (new) The method according to claim 26, wherein the metalorganic vapour comprises at least one of trimethyl gallium, trimethyl indium, and trimethyl aluminium.

28. (new) The method according to claim 23, wherein the heated bed of metal comprises granular silicon.

29. (new) The method according to claim 28, wherein the heated bed of metal oxide comprises granulated lime.